



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/567,396	02/07/2006	Thomas Durbaum	DE 030275	3931

65913 7590 08/22/2008  
NXP, B.V.  
NXP INTELLECTUAL PROPERTY DEPARTMENT  
M/S41-SJ  
1109 MCKAY DRIVE  
SAN JOSE, CA 95131

EXAMINER
----------

ZWEIZIG, JEFFERY SHAWN

ART UNIT	PAPER NUMBER
----------	--------------

2816

NOTIFICATION DATE	DELIVERY MODE
-------------------	---------------

08/22/2008

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ip.department.us@nxp.com

<b>Office Action Summary</b>	<b>Application No.</b> 10/567,396	<b>Applicant(s)</b> DURBAUM, THOMAS	
	<b>Examiner</b> Jeffrey S. Zweizig	<b>Art Unit</b> 2816	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 07 February 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6 and 8-14 is/are rejected.
- 7) ☒ Claim(s) 7 and 15 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 February 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-3, 10 and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by Nakamura (5,801,572).

Fig. 1 shows first 11 and second 12 FETs and a gate voltage control circuit 3 as recited in claims 1, 2 and 8. The FETs inherently have ON resistances and the FETs are individually controlled by 3.

The currents and temperatures of the first and second FETs are adjusted to each other by the gate voltage control circuit 3 as recited in claim 3.

The circuit performs the methods recited in claims 10 and 11.

Claims 1-6, 8 and 10-14 are rejected under 35 U.S.C. 102(b) as being anticipated by Osborn et al. (5,796,278).

Fig. 4 shows first 210 and second 202 FETs and a gate voltage control circuit 225/226/228/230 as recited in claims 1, 2 and 8. The FETs inherently have ON

Art Unit: 2816

resistances. The FETs are individually controlled (i.e. the first FET is controlled at the right side of resistor 226 and the second FET is controlled by the left side of resistor 226).

The currents and temperatures of the first and second FETs are adjusted to each other by the gate voltage control circuit as recited in claim 3.

Further shown is a current measuring unit 222 as recited in claim 4.

Since the current through the first FET is inherently related to temperature, the current measuring unit 222 is also seen as a temperature sensor as recited in claims 5 and 6. Note; little weight is given to claim 6 since "preset threshold value" is ambiguously undefined.

The circuit performs the methods recited in claims 10-14.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nakamura in view of Shreve et al. (6,100,728).

Nakamura shows an FET switch circuit, but does not appear to specifically mention automotive applications as recited in claim 9. Shreve et al. shows another FET

Art Unit: 2816

switch circuit applicable to an ignition system (i.e. an automotive application). It would have been obvious to apply the Nakamura invention to automotive applications as taught by Shreve et al. All the claimed elements were known in the Prior Art and one skilled in the art could have combined the elements as claimed by known methods with no changes in their respective functions, and the combination would have yielded predictable results to one of ordinary skill in the art at the time of the invention.

Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Osborn et al. in view of Shreve et al. (6,100,728).

Osborn et al. indicate that their circuit can be applied to inductive loads (col 1, In 14), but do not appear to specifically mention automotive applications as recited in claim 9. Shreve et al. shows another FET circuit applicable to an ignition system (i.e. an automotive application). It would have been obvious to apply the Osborn et al. invention to automotive applications as taught by Shreve et al. All the claimed elements were known in the Prior Art and one skilled in the art could have combined the elements as claimed by known methods with no changes in their respective functions, and the combination would have yielded predictable results to one of ordinary skill in the art at the time of the invention.

***Conclusion***

Claims 7 and 15 are objected to as being dependent upon a rejected base claim, but may be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrey S. Zweizig whose telephone number is (571) 272-1758. The examiner can normally be reached on Monday thru Wednesday 6:00 am to 6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lincoln Donovan can be reached on (571) 272-1988. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2816

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

404110f1  
/Jeffrey S. Zweizig/  
Primary Examiner, Art Unit 2816

Jeffrey S. Zweizig  
Primary Examiner  
Art Unit 2816